

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

RE: CLAIMS 48 and 51

Claim 48 has been amended to depend from claim 36 (instead of from claim 1, from which claim 13 depends), and claim 51 has been amended to depend from claim 50 (instead of from claim 15, from which claim 16 depends). Accordingly, is respectfully submitted that amended claims 48 and 51 are not substantial duplicates of claims 13 and 16.

RE: THE REJECTION UNDER 35 USC 112, FIRST PARAGRAPH

Claims 40-45 were rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Claims 40-45 have been canceled, thereby rendering moot the rejection under 35 USC 112, first paragraph.

RE: THE REJECTION UNDER 35 USC 112, SECOND PARAGRAPH

Claims 3, 36-47, 49, 50 and 53 were rejected under 35 USC 112, second paragraph, as being indefinite. The Examiner has specifically objected to recitations in claims 3, 36, 37 and 53. Although not specifically addressed, claims 38-47, 49

and 50 appear to have been rejected due to their dependency on claim 36.

Claims 3 and 37 have been amended to adopt the language suggested by the Examiner to overcome the rejection under 35 USC 112, second paragraph.

In addition, claim 36 has been amended at line 20 to change "each said recess" to "each said at least one recess" to clarify that "each said at least one recess" referred to at line 20 of claim 36 corresponds to the "at least one recess" recited at lines 6-7 of claim 36, as required by the Examiner.

Still further, claim 53 has been amended to clarify the feature of the present invention whereby the least one interconnection comprises a lower conductive layer and an upper conductive layer formed on an entire upper surface of the lower conductive layer so as not to laterally project past the upper surface of the lower conductive layer. It is respectfully submitted that Fig. 1 clearly and fully supports the recitation in claim 53 of a lower conductive layer (8a) and an upper conductive layer (8b) formed on an entire upper surface of the lower conductive layer so as not to laterally project past the upper surface of the lower conductive layer.

No new matter has been added, and it is respectfully submitted that amended claims 3, 36, 37 and 53, and claims 38, 39

and 46-51 depending from claim 36, all fully comply with the requirements of 35 USC 112, second paragraph.

Accordingly, it is respectfully requested that the amendments to claims 3, 36, 37 and 53 be approved and entered, and that the rejection under 35 USC 112, second paragraph, be withdrawn.

RE: THE ALLOWABLE SUBJECT MATTER

The Examiner's indication of the allowability of the subject matter of claims 3, 36 and 37 respectfully acknowledged.

As explained above, it is respectfully submitted that allowable claims 3, 36 and 37 fully comply with the requirements of 35 USC 112, second paragraph.

Accordingly, it is respectfully submitted that independent claims 36 and 37, and claims 38, 39 and 46-51 depending from claim 36, are now all in condition for immediate allowance.

Claim 3, however, has not been rewritten in independent form at this time since, as set forth in detail hereinbelow, it is respectfully submitted that its parent claim 1, as amended, also recites allowable subject matter.

RE: THE AMENDMENTS TO INDEPENDENT CLAIMS 1 AND 52

Independent claim 1 has been amended to clarify the feature of the present invention whereby the at least one interconnection

includes at least one conductive layer having: (i) a first section formed on the bottom surface of a corresponding said at least one recess to extend along the bottom surface, over the first portion and the second portion of the recess, and (ii) a second section that is directly contacted to a corresponding one of the connecting pads through a corresponding one of the holes in the insulating film, wherein the at least one conductive layer is formed of a same material along an entire length thereof, including the first section and the second section.

In a similar manner, claim 52 has been amended to clarify the feature of the present invention whereby each of the plurality of interconnections includes at least one conductive layer having: (i) a second section directly connected to a corresponding one of the connecting pads through a corresponding one of the holes in the protective film, and (ii) a first section provided on a corresponding one of the recessed surfaces of the protective film to extend along the corresponding one of the recessed surfaces over the first and second portions thereof, wherein the at least one conductive layer is formed of a same material along an entire length thereof, including the first section and the second section.

It is respectfully submitted that the amendments to independent claims 1 and 52 are fully supported by the disclosure

of the specification and drawings. See, for example, lower metal layer 8a (of the distribution wire 8), which has a (second) section that is directly connected to a connection pad 2, and a (first) section which extends over the first and second portions of the surface of the recess 7. According to one example given in the specification, the lower metal layer 8a is formed of a same material (e.g., a layer of titanium and a layer of copper, or a single copper layer) over the entire length thereof.

No new matter has been added, and it is respectfully requested that the amendments to claims 1 and 52 be approved and entered.

RE: WITHDRAWN CLAIMS 5-11

It is respectfully requested that withdrawn claims 5-11 be considered on the merits and allowed upon allowance of their parent claim 1.

RE: THE PRIOR ART REJECTION

Claims 1, 4, 12-16, 48 and 51-53¹ were all rejected under 35 USC 102 or under 35 USC 103 as being anticipated by or obvious in view of US 2002/0027298 (previously cited "Sakamoto et

¹ Claims 48 and 51 now depend directly or indirectly from allowable claim 36, and are therefore in condition for allowance.

al"). These rejections, however, are respectfully traversed with respect to the claims as amended hereinabove.

The Examiner asserts on page 5 of the Office Action that pad 11A and an "upper" portion of the electrical connecting means SD of Sakamoto et al together correspond to the at least one interconnection recited in claim 1 and the interconnections recited in claim 52. The Examiner further asserts on page 5 of the Office Action that the "interconnection" of Sakamoto et al is formed of a same material along an entire length thereof because the pad 11A is formed of, for example, copper according to Sakamoto et al. It is respectfully pointed out that in making this assertion, the Examiner has omitted reference to the electrical connecting means SD of Sakamoto et al, which the Examiner asserts is part of the "interconnection" of Sakamoto et al, and which is not made of the same material as pad 11A. Indeed, according to Sakamoto et al, the electrical connecting means SD is a "brazing material like solder, conductive paste, and anisotropic conductive resin."

Thus, it is respectfully submitted that if pad 11A and the "upper" portion of the electrical connecting means SD of Sakamoto et al were considered to correspond to an interconnection as recited in claims 1 and 52, as suggested by the Examiner, then the "interconnection" of Sakamoto et al, using the Examiner's

interpretation of Sakamoto et al, clearly is not formed of a same material over an entire length thereof as asserted by the Examiner.

In order to clarify the recitation of the interconnection in independent claims 1 and 52, claim 1 has been amended to recite at least one interconnection including at least one conductive layer having: (i) a first section formed on the bottom surface of a corresponding said at least one recess to extend along the bottom surface, over the first portion and the second portion of the recess, and (ii) a second section that is directly contacted to a corresponding one of the connecting pads through a corresponding one of the holes in the insulating film, wherein the at least one conductive layer is formed of a same material along an entire length thereof, including the first section and the second section.

Similarly, independent claim 52 has been amended to recite a plurality of interconnections, each of which includes at least one conductive layer having: (i) a second section directly connected to a corresponding one of the connecting pads through a corresponding one of the holes in the protective film, and (ii) a first section provided on a corresponding one of the recessed surfaces of the protective film to extend along the corresponding one of the recessed surfaces over the first and second portions thereof, wherein the at least one conductive layer is formed of a

same material along an entire length thereof, including the first section and the second section.

If, as suggested by the Examiner, pad 11A and the "upper" portion of electrical connecting means SD of Sakamoto et al together form a structure corresponding to the interconnection(s) of independent claims 1 and 52, then it is respectfully submitted that, at best, the upper portion of the electrical connecting means SD would correspond to the "second section" recited in independent claims 1 and 52 (a section of a conductive layer of the interconnection that is in direct contact with the connection pad, which the Examiner asserts is the "lower" portion of electrical connecting means SD of Sakamoto et al), while the pad 11A of Sakamoto et al would, at best, correspond to the "first section" recited in claims 1 and 52. However, as pointed out above, electrical connecting means SD and pad 11A of Sakamoto et al are not made of the same material.

By contrast, according to the present invention as recited in amended independent claims 1 and 52, the at least one conductive layer of the interconnection(s) is formed of a same material along an entire length thereof, including the first section and the second section.

Accordingly, it is respectfully submitted that Sakamoto et al clearly does not disclose the structure of the present invention as recited in amended independent claims 1 and 52.

In addition, it is respectfully submitted that Sakamoto et al does not suggest any modification of the invention thereof that would achieve the features of the present invention as recited in amended independent claims 1 and 52. Indeed, Sakamoto et al specifically teaches away from expanding the electrical connecting means SD into a structure that would resemble the interconnection recited in amended claims 1 and 52, since according to Sakamoto et al a flow-prevention film DM is provided to prevent the electrical connection means SD from flowing (to the conductive path 11B). See the abstract of Sakamoto et al.

In view of the foregoing, it is respectfully submitted that the present invention as recited in amended independent claims 1 and 52 and claims 3-16 and 53 respectively depending therefrom clearly patentably distinguish over Sakamoto et al, under 35 USC 102 as well as under 35 USC 103, along with allowable claims 36-39 and 46-51.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

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